

Making the Match Between Content and Foreign Language: A Case Study on University Students' Opinions Towards CLIL

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Abstract: The present article intends to show the positive evaluation of post-graduate university students at a Spanish university after the curricular integration experience and the application of CLIL scaffolding techniques. It also aims to identify areas of methodological improvements and recommendations in the application of CLIL in the referred programme as well as in higher education contexts. The researchers used a cross-sectional study to survey the students' opinion on ICL after the integration of the syllabus of one foreign language subject and another content subject in a post-graduate degree at a private Spanish university in Madrid (Spain). The results point to a positive view of CLIL from Spanish higher education post-graduate students. The survey results also seem to show the students' confidence in CLIL for their English-led classes aids them to simultaneously increase their foreign language acquisition and their nonlinguistic contents learning. However, researchers detected certain linguistic scaffolding aspects appear to need further students' training and teachers' methodological adjustments, as they can negatively affect learners' engagement and hence, their learning outcomes. The authors note more research is needed to collect data from a wider population and increase the reliability of the results.

Keywords: CLIL methodology at university, English-Mediated Instruction (EMI), curricular integration, language and cognitive learning, scaffolding techniques, students' opinions

Introduction

As CLIL methodology has reported successful experiences in compulsory education, this approach is likewise gaining path in Spanish universities as a promising means to increase competence in foreign languages, particularly English, to train students to be able to manage in a globalized world.

The mechanism to integrate the learning of English into the acquisition of the non-linguistic curricular contents involves a complex patchwork of language and reasoning scaffolding techniques to increase learners' motivation and foster the simultaneous development of the target language, cognitive skills, and content comprehension. For that reason, this practice demands, on the one hand, the break with the traditional arbitrary curricular subject division and, on the other, the curricular integration of linguistic and nonlinguistic areas in a meaningful manner in relation to objectives, learning processes and assessment procedures.

The advent of ICL (Integrated Content and Language), as CLIL is widely known in tertiary settings, raises a variety of questions related to whether and in which manner this practice could

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gradually be applied to English-Mediated learning contexts; in particular, to the organization and procedures at instructional levels regarding the syllabi, along with the methodological and linguistic rearrangements to fulfil learners' demands.

Although a number of experiences are currently starting to be reported, ICL in Spanish universities is a recent phenomenon which still needs to be investigated. Under this light, the present article intends, on the one hand, to show the positive evaluation of post-graduate university students at a Spanish university after the curricular integration experience and the application of CLIL scaffolding techniques and, on the other, to identify areas of methodological improvements and recommendations in the application of CLIL in the referred programme as well as in higher education contexts.

CLIL and the Curricular Integration

CLIL methodology seems to be gaining prestige as a feasible model for university foreign language-led instruction valuable to effectively integrate the learning of the foreign language and the acquisition of the contents in subjects of a nonlinguistic nature. This section will explore the concept of curricular integration and the integrative mechanisms in which this methodology is grounded, as well as its possible and current application in Spanish tertiary contexts.

Curricular integration. Curricular integration views the world without the artificial knowledge division traditionally implemented in the shape of subjects. The concept has been studied by numerous researchers (Beane 2005; Fogarty & Pete, 2009; Jacobs, 2010; Shoemaker, 1989) who have agreed on describing it as thematic, linked, holistic, interdisciplinary, and continuum. A basic definition is the one by Shoemaker (1989), who defined it as "...education that is organized in such a way that it cuts across subject-matter lines, bringing together various aspects of the curriculum into meaningful association to focus upon broad areas of study" (p. 5).

Curricular integration presents numerous benefits to train students manage in the so-called knowledge society (Beane, 2005; Jacobs, 2010). Firstly, it requires learners to transfer strategies and skills acquired in the different subjects to other content areas which, in turn, can strengthen their understanding and learning motivation; secondly, it can offer a potential solution to manage the increasing amount of areas to be dealt within the curriculum.

Nevertheless, curricular integration can take place in a variety of manners and degrees. To this regard, Fogarty and Pete (2009) maintained that the different models have in common the overlap of syllabus material which can originate occasions for joint work. Thus, for example, an integrated curriculum can develop specific cross-curricular objectives, particular lessons with certain cross-curricular activities, various cross-curricular links, or whole planning wheels including all the subjects in the curriculum (Figure 1).

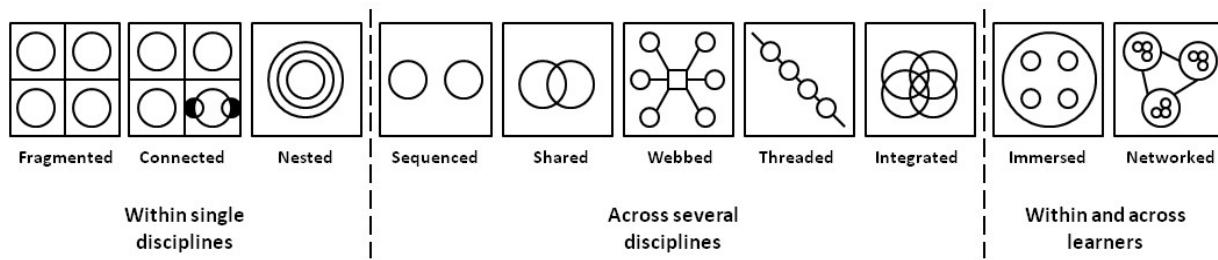


Figure 1. Models to integrate de curriculum (Fogarty, 1991, p. 14).

Curricular integration in CLIL. Curricular integration is essential in CLIL as it claims the simultaneous acquisition of contents of a linguistic and non-linguistic nature. Gajo viewed it as “an ‘umbrella’ term used to talk about bilingual education situations” (as cited in Bentley, 2010, p. 5). Bentley (2010) described it as “an evolving educational approach to teaching and learning where subjects are taught through the medium of a non-native language” (p. 5). Marsh (2002) agreed with both, but added the motivational dimension and claimed that it can develop a “can do” attitude. Baetens-Beardsmore pointed out that CLIL cannot only aid foreign language learning but education in its general sense (as cited in Marsh, 2002). Finally, for Genís and Martín de Lama (2013), CLIL places the curricular contents of the target language and of other subjects as context to favour communication in second languages (p. 22). Regarding contents acquisition, this methodology also advocates task-based, project-centred or problem-solving learning in which the learner builds his/her own knowledge either individually or in cooperation with others (2013, p. 22).

CLIL experiences have proved successful at Spanish compulsory education stages for several reasons (Coyle, 2011; Coyle, Hood, & Marsh, 2010; Dalton-Puffer, 2007; Dalton-Puffer, Nikula, & Smit, 2010; Lasagabaster & Ruiz de Zarobe, 2010; Llinares, Morton, & Whittaker, 2012; Lyster, 2007; Marsh, 2002; Marsh & Wolff, 2007; Mehisto, Marsh, & Frigols, 2008):

- it can increase the learners’ exposure to the foreign language through the integration of the target language into the subject content classes;
- it can raise students’ thinking ability, as they must actively use the foreign language to learn other curricular subjects, relate concepts, and reflect about their own learning;
- it can provide a meaningful context for language use and cognitive development which, in turn, can foster students’ engagement in learning;
- and, it can address the question of different learning styles, as it is the learners themselves who must organize and plan, often in cooperation, how they are going to tackle the tasks proposed.

Integrative CLIL curriculum design. CLIL methodology is dual-focused since it entails two main objectives: one related to the topic (nonlinguistic subject) and the other associated with the foreign language (linguistic subject) (Marsh & Wolff, 2007). However, depending on the amount of instruction hours through immersion, the degree of curricular integration (Figure 1), and on whether the focus is more on the language or on the subject, CLIL implies a wide spectrum of educational contexts within a continuum, from soft to hard CLIL going through modular CLIL (Figure 2).

Soft CLIL ↑ ↓ Hard CLIL	Type of CLIL	Time	Context
	Language-led	45 minutes once a week	Some curricular topics are taught during a language course.
	Subject-led	15 hours during one term	Schools or teachers choose parts of the subject syllabus which they teach in the target language.
	Subject-led (partial immersion)	About 50% of the curriculum	About half of the curriculum is taught in the target language. The content can reflect what is taught in the L1 curriculum or can be new content.

Figure 2. Types of CLIL (Bentley, 2010, p. 6).

Nevertheless, despite the label it takes, it requires the joint work of the teachers involved together with the complex combination of the syllabi of both the foreign language and the nonlinguistic subject(s). CLIL units and lessons revolve around three main components, namely *content*, *communication*, and *cognition*, and a fourth one, *community*, which embraces the other three (Figure 3). This 4 Cs framework ensures a) guidance for adequate progression in knowledge and skills acquisition (content); b) learning interaction in the foreign language and language use for learning (communication); c) learning engagement, and development of thinking skills for knowledge understanding (cognition); and, d) awareness of self and others, as well as emergence of feelings of citizenship (adapted from Coyle, Holmes, & King, 2009, p. 12-15).

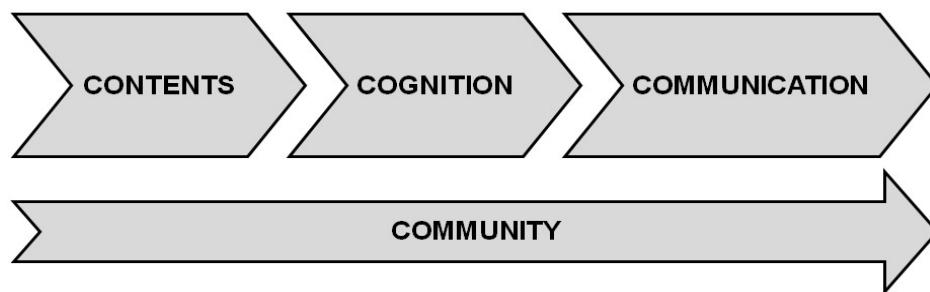


Figure 3. Main steps in CLIL unit planning (adapted from Coyle et al., 2010).

Scaffolding as the integrative tool in CLIL unit planning. Since in CLIL learners encounter the additional challenge of developing simultaneously their cognitive, as well as their foreign language skills, they will need extra support throughout the whole process (Bentley, 2010; Coyle et al., 2010; Mehisto et al., 2008). This external help, referred to as *scaffolding*, denotes the temporary aid received from teachers or from more expert peers in order to face new contents until they eventually become independent learners.

Scaffolding is extremely necessary in these educational contexts in which the foreign acts as a mediator of the contents, so as to facilitate the comprehension of linguistic and nonlinguistic contents and reduce the linguistic or the content overload. As Swain stated, “content teaching must guide students’ progressive use of the full functional range of language, and to support their understanding of how language form is related to meaning in subject area material” (as cited in Pérez-Vidal, 2015, p. 34). However, integrating the learning of the target language and the subject content(s), and the development of thinking skills, require a careful and systematic planning and monitoring of the learning process. Thus, in CLIL contexts, and depending of the CLIL type, the focus should be on keeping a balance between language form and content.

The process in the use of scaffolding techniques such as visual aids (e.g., images, photographs), non-verbal language, language modelling, dialogues, contextualization, graphic organizers or questioning, among others, is complex as it should be graded depending on the learners’ prior knowledge (or the Zone of Proximal Development [ZPD]¹). In this sense, Cummins’ Quadrant (Cummins, 1996) is considered an effective tool to design CLIL units, lessons, and for materials adaptation, since it can aid alternatively scaffold cognitive and linguistic skills and it makes learners evolve from concrete to abstract thinking while gradually increasing the contents’ linguistic demands (Genís & Martín de Lama, 2013). According to Cummins (1996), learning and assessment tasks should progress so that learners advance towards the most cognitively demanding part of the quadrant (Figure 4). Simultaneously, the linguistic load of tasks should

¹ The Zone of Proximal Development (ZPD), a theory developed by Vygotsky, refers to “the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance, or in collaboration with more capable peers” (1978, p. 86).

become higher as learners advance in their content knowledge and their thinking skills development. Scaffolding techniques encompass the whole process by alternating the cognitive and the linguistic assistance, once at a time, to ensure the correct acquisition of both the linguistic and the non-linguistic contents.

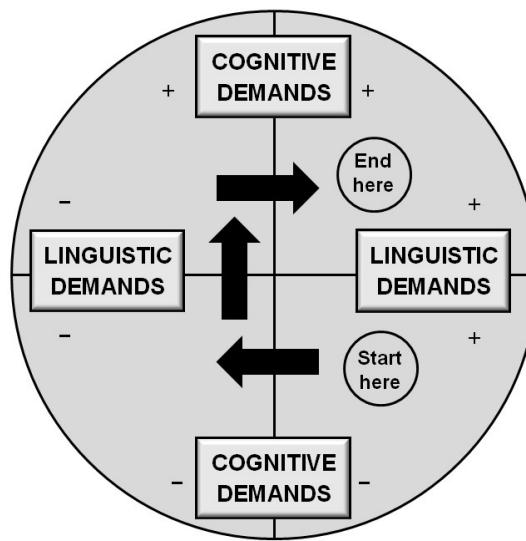


Figure 4. Cummins Quadrant (adapted from Cummins, 1996).

CLIL to Integrate Linguistic and Nonlinguistic Contents at Spanish Universities

As argued in the previous section, CLIL is reaching higher education based on its relative success in compulsory education. In this scenario, the questions which arise are whether and in which manner this practice could be applied to tertiary contexts.

Spanish higher education institutions are increasing their offer of programmes being taught in English. In this context, it seems indispensable to find a methodology which can aid to combine at the same time the learning of the foreign language and the subject contents, for which CLIL is regarded as a possible solution. However, the application of CLIL to Spanish tertiary settings is relatively new and investigations in this field have tentatively started to be reported.

English-Mediated Instruction (EMI) in Spain. Globalization has brought along an interest in internationalization (Michavila, 2012, 2014) at Spanish universities with the purpose of increasing their social prestige and competitiveness in the global market, and meet the requirements of the European Higher Education Area (Dearden, 2014; Halbach, 2012; Halbach, Lázaro, & Pérez, 2013; Smit & Dafouz, 2012). Thus, a growing number of Spanish universities are implementing programmes taught through the medium of English, namely English-Mediated Instruction (EMI hereinafter), related to a wide variety of disciplines.

The application of ICL entails a meticulous adaptation to the idiosyncrasy of university studies. In relation to this, a soft-hard CLIL dichotomy does not seem enough to address the variety of contexts of English-led tuition in higher education. The movement in CLIL implementation in higher education is clearly explained by Greere and Räsänen (2008) (Figure 5), who detailed the passage from "non-CLIL" and "pre-CLIL" experiences, with separate subject-specific and foreign language content, to Language for Specific Purposes (LSP) and the subsequent "partial CLIL", which also included Language for Academic Purposes (LAP), until the

stages of “adjunct” and “dual-focused” CLIL are reached (p. 6). According to Brebera and Hloušková (2012), current EMI programmes can be placed somewhere within this framework depending on the level of integration of their subjects.

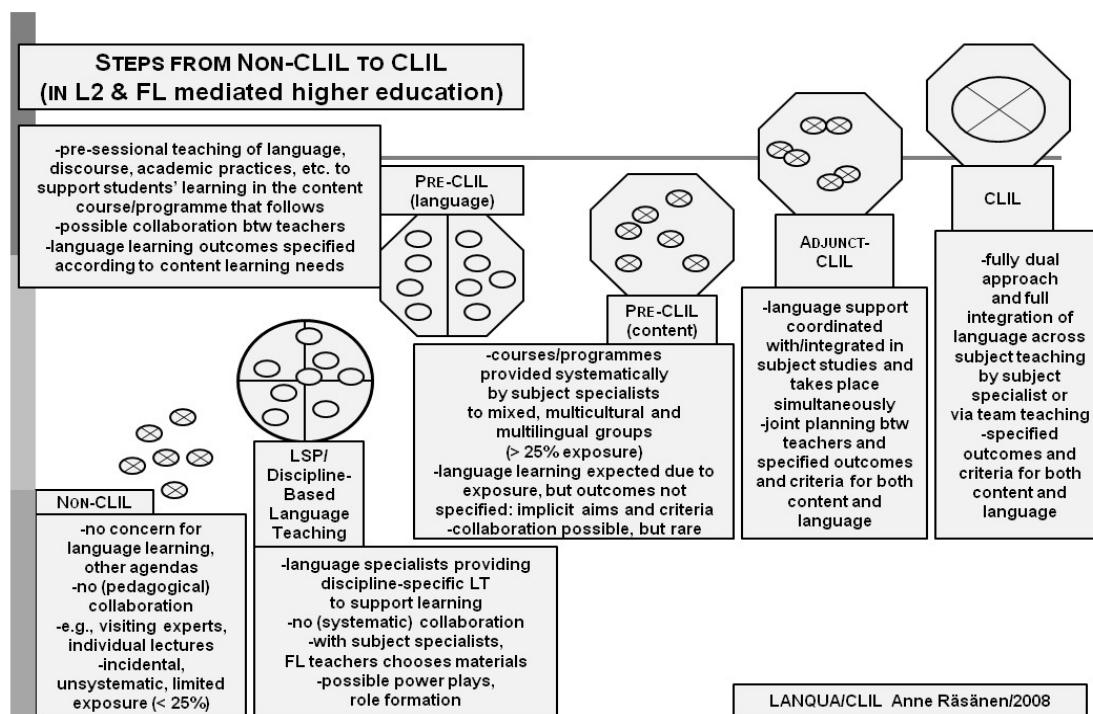


Figure 5. Steps from non-CLIL to CLIL in higher education (Greere & Räsänen, 2008, p. 6).

Furthermore, in order to transform EMI practices into fully dual-focused ICL, institutions and instructors would require the introduction of decisive changes to meet students' requirements (Bertaux, Coonan, Frigols, & Mehisto, 2010; Doiz, Lasagabaster, & Sierra, 2013; Halbach, 2012; Marsh, Pavón, & Frigols, 2013), which pass for promoting tight collaboration and communication among teachers and departments. In this respect, Smit and Dafouz (2012), like Pavón and Gaustad (2013), demanded the design and implementation of university language policies prior to CLIL experimentation. In this line, while Fortanet-Gómez (2013), González (2013), and Doiz et al. (2013) proposed guidelines for a multilingual language policy, Forán and Sancho (2009) presented a sample of the theory and the practice of a top-down CLIL implementation.

Likewise, the implementation of a CLIL type of approach in tertiary settings seems to affect teachers' autonomy, as they need to reorganize their syllabi and lesson plans to integrate linguistic and nonlinguistic objectives and contents, and apply CLIL-specific scaffolding learning techniques and assessment procedures. To this regard, Forán and Sancho (2009) also proposed reformulating the CLIL teacher's role into that of facilitator and provider, and Halbach et al. (2012) emphasized the importance of learners' linguistic needs in these settings. In the meantime, while Aguilar and Rodriguez (2012) remarked the exclusion of linguistic aims and assessment items in CLIL classes, Dafouz and Núñez (2009), Ball and Lindsay (2013), and Fortanet (2012) reinforced the importance of teacher training in linguistic scaffolding. Likewise, González and Barbero (2013) proposed a list of new pedagogical features necessary in higher education CLIL as, according to Sancho (2009), there is a mismatch between what instructors know about CLIL and what they actually do. In a similar vein, Smit and Dafouz (2012), claimed for ESP and CLIL teachers' preparation, and Wozniak (2013) advocated a tight collaboration between content and language teachers.

Regarding students' learning results, Aguilar and Rodriguez (2012) reported a high level of satisfaction with the acquisition of specialized vocabulary along with a rise in their listening and speaking skills. Dafouz and Sánchez (2013), for their part, emphasized the importance of high order questions to increase understanding, while Argüelles (2013) pointed out the reported holistic view of learning provided by the CLIL experience. Finally, Dafouz, Camacho, and Urquía (2013) gave evidence for the equal results in contents acquisition in comparison to non-CLIL groups.

As for students' opinion towards ICL, Aguilar and Rodríguez (2012) pointed out the benefits of CLIL for learners from both a motivational and a language competence perspective. Likewise, Dafouz and Núñez (2009) reported on the positive view of CLIL in order to raise students' academic and professional opportunities.

Therefore, in order to contribute to the on-going research on ICL, the next section presents the results of a cross-curricular investigation on Spanish university learners to elicit their opinion towards the use of CLIL methodology in their subject content university classes.

Research

This investigation aimed at surveying cross-sectionally the students' opinion on ICL after the integration of the syllabus of one foreign language subject and another content subject in a post-graduate degree at a private Spanish university in Madrid (Spain). The results will be analyzed in detail to identify areas of methodological improvement in CLIL application in the programme that could be applicable to other higher education contexts.

Context and Population

The research was conducted at the Master's Degree in Bilingual Education at a Spanish university. The main objectives of the programme are a) to train future teachers in bilingual education and CLIL methodology, and b) to improve their communicative skills in English. For this purpose, 93% of the programme's subjects are taught in English. The 60 ECTS degree is composed of 48 credits in content learning, with modules such as Principles and Rationale of Bilingual Education or Content and Language Integrated Learning (CLIL), among others. The other 12 credits are related to the development of communicative competence in English with the 3-subjects module of Communicative Skills in English (SCE). The subjects involved in this study are CLIL Courses Planning and Design (from the CLIL module), with attention on the subject content (subject content or SC hereinafter), and Communicative Skills in English 1 (from the CSE module), with focus on the foreign language (foreign language or FL hereinafter).

The students' population had a total number of 23 individuals; although, only 19 of them answered the survey. Before being accepted into the programme, all students had to pass a test (CERF) on their level of English. To this regard, B1+ was considered the minimum acceptable to progress in the programme; though, as the graph below shows, 13% of students were accepted with a B1 / B1+ level. On the contrary, 52% of them were placed between B1+ and B2, 26% were between B2 and B2+, and 9% of them were over B2+.

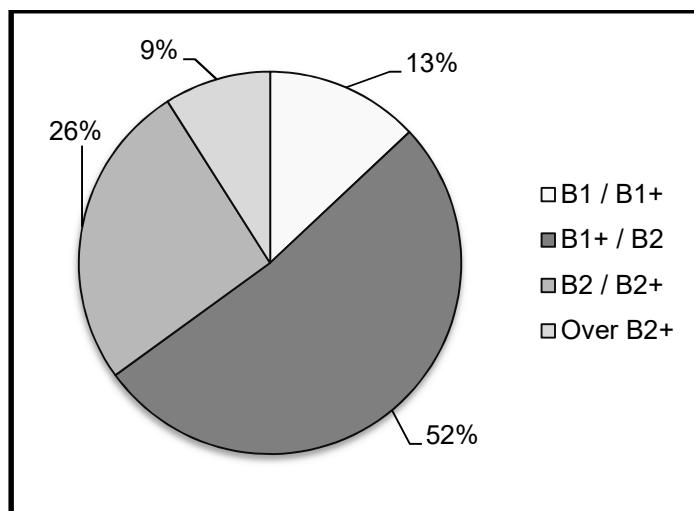


Figure 6. Tested level of English of students prior to course start.

The Design and Application of the Curricular Integration

In the curricular integration used, only the last four didactic units (out of seven) in each of the subjects were combined. Moreover, taking into account the stages towards CLIL previously described (Greere & Räsänen, 2008), the integration of the curriculum of the two subjects involved in the study could be viewed as “adjunct CLIL” since a) the language support was integrated in the subject studies and took place simultaneously, and b) teachers from both SC and FL jointly planned learning outcomes and evaluation criteria. The situation prior to the CLIL integration was the typical pre-CLIL one in which a) the two courses were taught by subject specialists through a 100% immersion although with rare collaboration with the language teacher; and b) language learning was expected take place due to exposure; although, linguistic outcomes, aims, or assessment criteria were not specified.

The curricular integration was designed following elements and procedures of CLIL methodology (Figure 7), namely:

- The *selection* of contents in SC and in FL along with the statement of linguistic and nonlinguistic objectives.
- The *proposal* of learning tasks, starting with the focus on cognition (and the passage from LOTS to HOTS), and following with the ones of a linguistic nature, by making use of techniques related to CLIL, such as cooperative work, which will lead to:
 - individual knowledge acquisition;
 - language and cognitive scaffolding;
 - explicit treatment of linguistic issues in the content class with the aim of developing learners' interpersonal and academic language;
 - a holistic understanding of knowledge; and
 - the acquisition of competences and knowledge application in new contexts.
- The *planning* of assessment tasks to check both on learners' language and cognitive (content) achievement through the practice of self- and peer assessment, and the reflection on the skills acquired and the learning process followed.

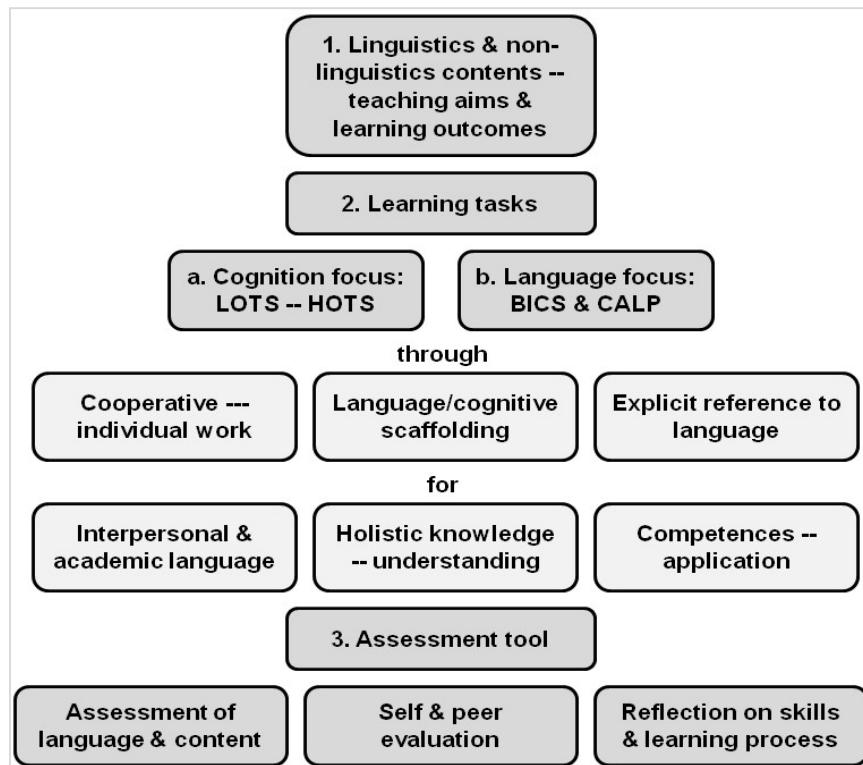


Figure 7. Methodological procedures and aspects considered in CLIL unit design

Survey Categories and Items

At the end of the 1st term (February 2014), after applying the CLIL approach in the last four didactic units of both subjects, learners were asked to fill in a survey in Spanish to express their opinion on the methodology followed to train their linguistic competence and their cognitive skills.

The questionnaire consisted of 12 items related to CLIL methodology on two categories, namely “Students’ communication in English in the content class” and “Students’ cognitive work in English in the content class” (Table 1), whose script is included in the running text of the survey results. Five out of the 6 items in each category were closed statements, followed by one open-ended item for “Further comments” in order to gain a deeper understanding on the answers in each of the blocks. Students had to range their responses from 1 to 5 on a Likert scale depending in their level of adherence, 1 being “strongly disagree” and 5 “strongly agree”. Surveys were conducted in Spanish, although the text of categories, statements, and students’ remarks has been translated into English for this article. Hereby the items in the survey are explained:

Category A. In this group of items, students were surveyed about the use of CLIL to improve their communication in the foreign language (Coyle et al., 2010; Cummins, 1996; Dalton-Puffer et al., 2010; Lyster, 2007; Llinares et al., 2012; Marsh, 2002; Mehisto et al., 2008). This category included the following aspects:

- *Improvement of BICS.* This item intended to know whether students felt that their interpersonal communicative skills (BICS) expanded.
- *Exposure to and practice in different genres.* Through this statement, learners could give their opinion on the helpfulness of being exposed and use different text types in the foreign language.

- *Acquisition of CALP*. In this item, students could express their satisfaction towards the use of CLIL to aid the acquisition of their cognitive and academic type of language.
- *Use of foreign language scaffolding techniques*. This statement intended to discover whether the use of techniques such as visual aids (e.g., images, photographs), non-verbal language, language modelling, dialogues, and contextualization, among other, had aided the understanding of language unknown to learners.
- *Increase in students' talking time*. This item aimed at eliciting whether or not the application of CLIL methodology had made students take the talking lead in classes.

Category B. Through this set of items, learners were investigated on their opinion of CLIL to nurture their cognitive work in English in the content class (Anderson, Krathwohl, & Airasian, 2001; Coyle et al., 2010; Lyster, 2007; Marsh, 2002; Mehisto et al., 2008). This group comprised the following items:

- *Improvement of contents understanding*. Through this statement, learners could express to which extent the integrated learning experience had fostered deeper content acquisition.
- *Progressive reasoning from LOTS to HOTS*. In this item, learners conveyed their opinion towards the use of CLIL to help them gradually acquire and apply knowledge.
- *Use of cognitive (content) scaffolding techniques*. This item aspired to find out if the use of techniques such as visual aids (e.g., images, photographs), contextualization, examples, graphic organizers, or questioning, among others, had helped students understand the contents in English.
- *Exploitation of effective questioning*. This statement was meant to evaluate the use of open questions to learners to check on their understanding and to guide their gradual progression from LOTS to HOTS.
- *Opportunities for revision and consolidation questioning*. By means of this last item, students could voice their opinion on the effectiveness of regular revision in order to consolidate their learning.

Table 1. Research survey categories

A Students' communication in English in the content class		6 items
1	Improvement of BICS	
2	Exposure to –and practice– in different text types	
3	Acquisition of CALP	
4	Use of foreign language scaffolding techniques	
5	Increase in students' talking time	
6	Further comments	
B Students' cognitive work in English in the content class		6 items
7	Improvement of contents understanding	
8	Progressive reasoning from LOTS to HOTS	
9	Use of cognitive (content) scaffolding techniques	
10	Exploitation of effective questioning	
11	Opportunities for revision and consolidation	
12	Further comments	

Results & Discussion

In this section, the results of the closed survey items are presented and discussed, integrating in each subsection the acknowledged comments made by learners for each of the categories in "Further comments" (i.e., items 6 and 12).

Students' Communication in the Foreign Language

Improvement of BICS. Students exhibited a high degree of adherence to the statement proposed in this item ("The effort I have made to study contents through English has helped me communicate better in the target language"), as 89.5% of learners strongly agreed and almost 10.5% agreed. No further comments were given on this issue.

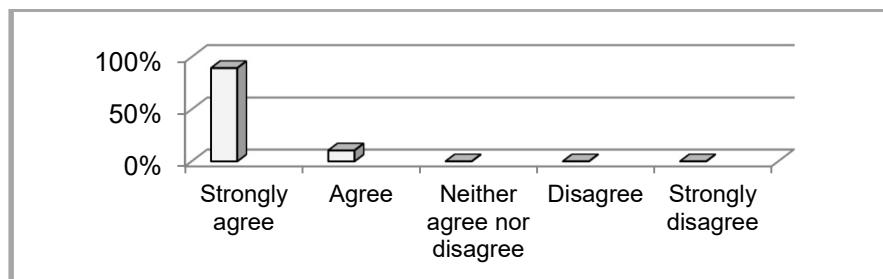


Figure 8. Improvement of BICS.

Exposure to & practice in different genres. In this statement ("It has been useful for my English competence to experiment with different types of texts in English (e.g., descriptive/argumentative, oral/written, formal/informal, etc."), 52.6% agreed and 42.1% strongly agreed on the benefits of exposing learners to different types of texts to aid foreign language acquisition. To this regard, they claimed that "the teacher has made us speak and write and do different things" and that they had to "speak and write in English all the time in class and to perform the different tasks". No additional comments could give account for the 5.3% of neutral answers.

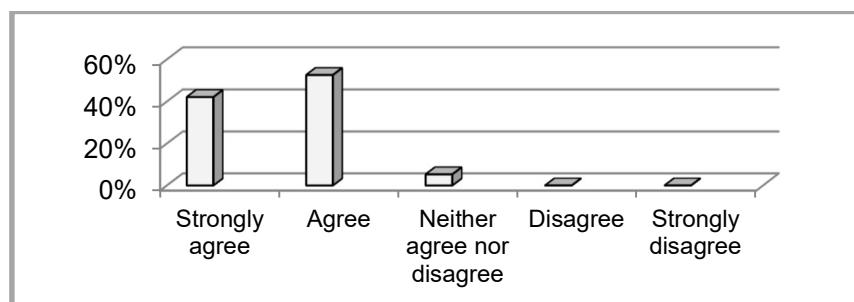


Figure 9. Exposure to & practice in different genres.

Acquisition of CALP. According to learners' responses to this item ("I have learnt academic language related to the subject"), 68.42% strongly agreed and 31.58% agreed that CLIL methodology had helped them acquire meaningfully the required language related to the subject in order to succeed academically. Nevertheless, one learner complained that she did "not feel prepared to speak in English in class" as she did "not know how to hold class discussions" on academic issues, even though she had acquired "much knowledge on subject-related vocabulary". This answer could reveal a possible flaw in the application of CLIL methodology

either as possibly having focused too much on subject-specific language and not so much on the academic (and subject-compatible) language.

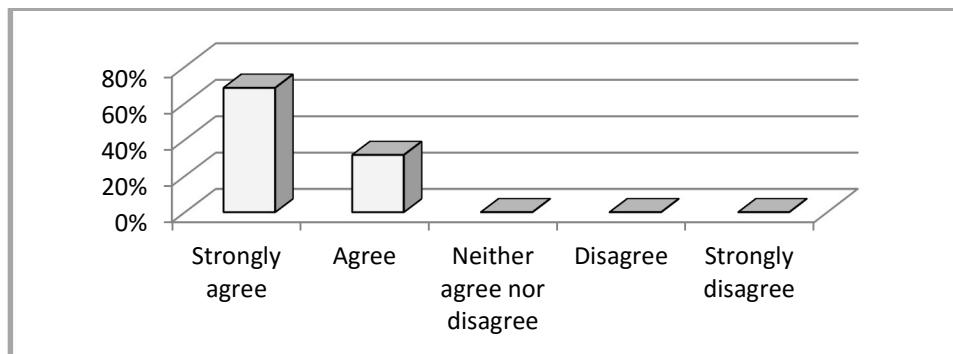


Figure 10. Acquisition of CALP.

Use of foreign language scaffolding techniques. In students' reactions towards this statement ("I have been able to understand new vocabulary and expressions in English thanks to the support in the shape of non-verbal cues, language modelling, dialogues, contextualization, etc."), although 42.11% of students agreed and another 42.11% strongly agreed that teachers had provided an adequate linguistic scaffolding, 10.52% of them disagreed and 5.26% strongly disagreed. The explanation to this could be found in some learners' remarks in which they claimed that, given the linguistic difficulties when dealing with the contents in English, they would have needed more assistance regarding linguistic functions and, to this regard, reinforce the idea expressed in the answers to the previous statement about the low development of overarching academic expressions. Thus, this is a methodological aspect which needs to be revised.

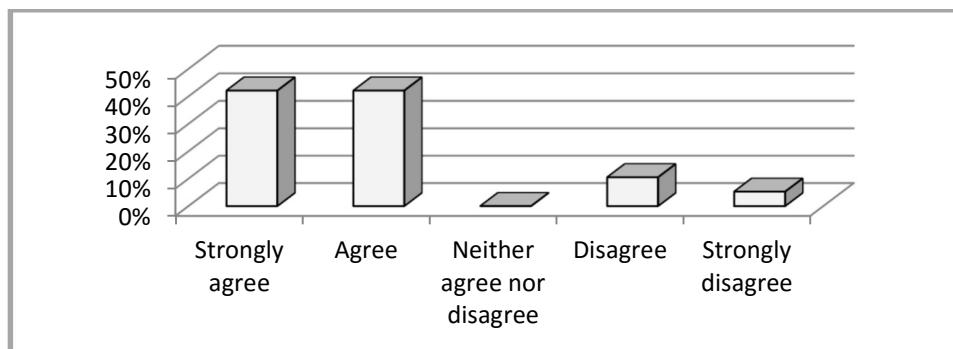


Figure 11. Use of foreign language scaffolding techniques.

Increase in students' talking time. To this issue, the students' responses were quite shared. While 36.84% agreed and 31.58% strongly agreed on the idea that students should take the talking lead in the class ("It has been useful that we spoke during most of the class time"), 21.05% were neutral and 10.53% disagreed. To this regard, it seems that students who displayed a low level of satisfaction in the previous statement felt likewise that they had not improved in their communicative competence in English, and responded also negatively to the issue proposed here. This could suggest a direct relationship between the lack of linguistic modelling received as regards linguistic functions and the unwillingness to communicate in the foreign language in the class.

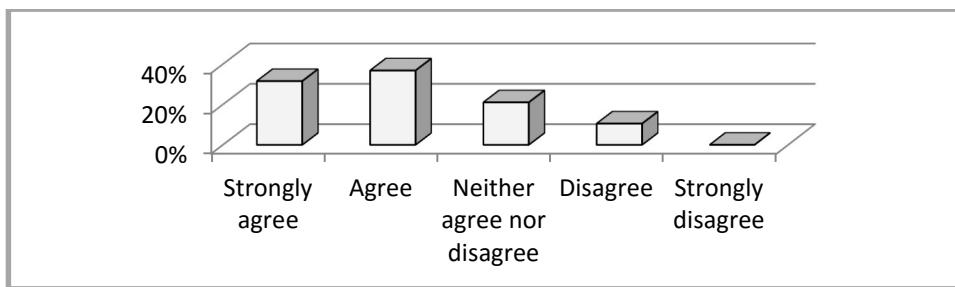


Figure 12. Increase in students' talking time.

Students' Cognitive Work in the Foreign Language

Improvement of contents understanding. Here, 73.69% of learners agreed and 21.05% of them strongly agreed with this statement ("The effort I have made to learn the contents in English has increased my understanding of contents"), which shows a high level of satisfaction with the use of the integrated curriculum to foster students' understanding of knowledge. Only 5.26% of learners did not agree with the advantages of curricular integration; although, no further observations were made to this regard.

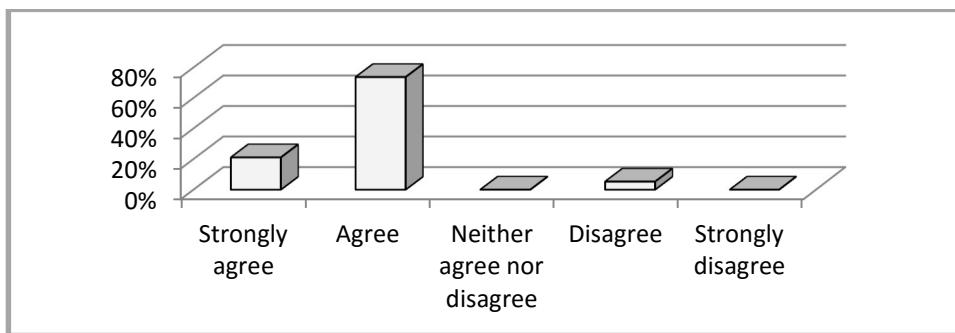


Figure 13. Improvement in contents understanding.

Progressive reasoning from LOTS to HOTS. In this item ("I have had time to progressively acquire new contents and competences building on what I already could do"), 31.6% of learners very much agreed and 47.4% agreed on the value of giving students time to build their own knowledge within their ZPD. As they argued, "it has been easy to understand new concepts since the teacher has told us to follow the steps". Nevertheless, 21% of learners neither agreed nor disagreed. Some remarks showed that they usually were required to memorize information and that "sometimes it is difficult to relate concepts and give reason for our answers". Thus, this appears to be an area which needs reinforcement.

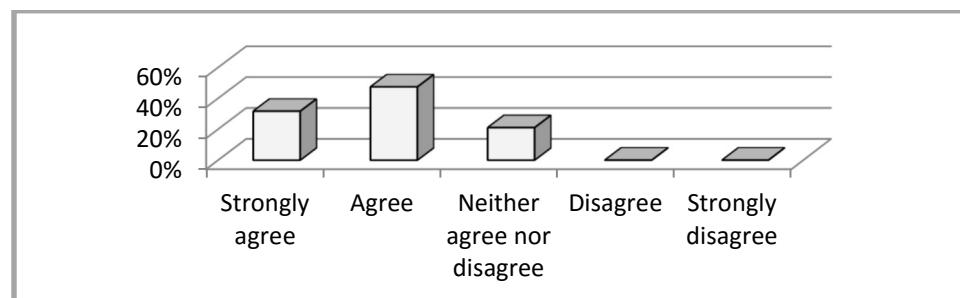


Figure 14. Progressive reasoning from LOTS to HOTS.

Use of cognitive (content) scaffolding techniques. For this statement (“I have been able to understand new contents in English thanks to the support in the shape of non-verbal cues, contextualization, examples, graphic organizers, questioning, etc.”), learners showed in general a high degree of satisfaction (47.37% strongly agreed and 42.11% agreed) with the use of scaffolding techniques with a focus on cognition and contents comprehension. As they claimed, the materials prepared by the teacher had helped “understand better the contents” although language was new. Only 5.26% were neutral and another 5.26% disagreed. The answer could be found in a student remark which complained that “we lose so much time in making graphs out of the texts we read”.

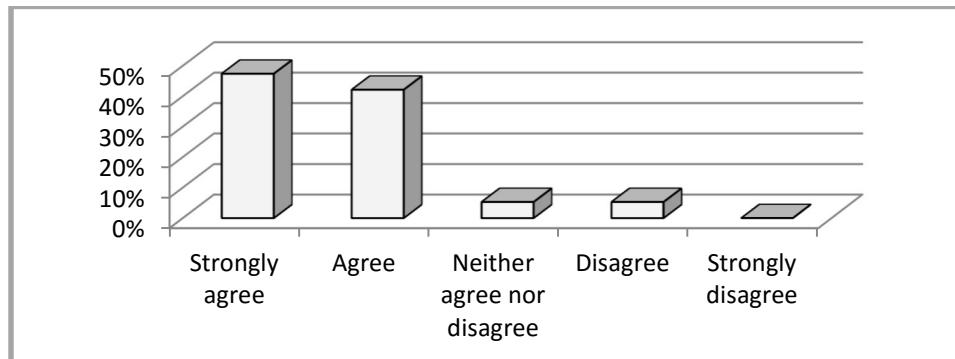


Figure 15. Use of cognitive (content) scaffolding techniques.

Exploitation of effective questioning. Regarding this item (“The questions the teacher has formulated have made me think and reasons my answers”), 47.37% of students strongly agreed and another 47.37% agreed with the use of open ended questions to promote deeper and transferable thinking (“it’s good not having to learn contents by heart”). However, 5.26% of learners strongly disagreed with this practice as they protested that “(...) it has been difficult to say why thought the way we did” and continued that “sometimes the teacher asks too many questions and I feel pressed”.

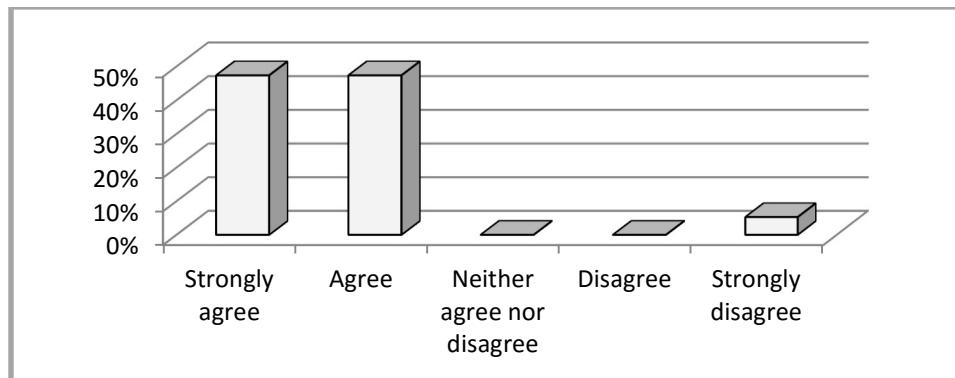


Figure 16. Exploitation of effective questioning.

Opportunities for revision and consolidation. Students’ answers to this statement (“It has been useful to revise regularly previous learnt contents”) reveal that 47.37% of them agree and another 47.37% strongly agreed that regular revision of previously acquired contents has been useful to consolidate learning, since they argued that “the teacher has made us revise old contents in every activity”. Only 5.26% gave a neutral answer, but none of them provided any explanation for these answers.

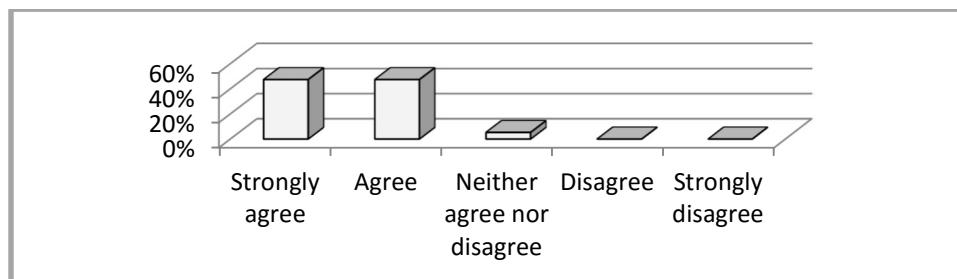


Figure 17. Opportunities for revision and consolidation.

Conclusions

The results reported above indicate, in general terms, a positive view of CLIL from Spanish higher education post-graduate students. This, after integrating the learning of English as a foreign language into the curriculum of other content areas through the reorganization of subject syllabi, together with certain methodological and linguistic rearrangements to fulfil learners' demands.

The survey results seem to show the students' confidence in CLIL for their English-led classes to aid them simultaneously increase their foreign language acquisition and their nonlinguistic contents learning. Learners were especially contented in relation to the increase in their self-perceived improvement level of English and contents understanding mainly due to:

- the cognitive effort made when dealing with the contents in English;
- the provision of contents in different formats;
- the regular revision of contents; and
- the application of scaffolding techniques to aid their linguistic and cognitive development.

However, according to the survey, one area of improvement has been detected. To begin with, in spite of the students' advanced level of English before entering the programme, certain linguistic scaffolding aspects appear to need further students' training and teachers' methodological adjustments, as they can negatively affect learners' engagement and hence, their learning results. According to the survey outcomes, instructors must assist their students more in developing simultaneously their BICS and CALP, and to foster their self-esteem as language users, and not only their ability to know academic terms. For that purpose, a better exploitation of linguistic scaffolding techniques, such as functional language modelling, seems to be necessary to increase learners' active participation using the foreign language in academic contexts.

Furthermore, notwithstanding the optimistic outcomes, further research to collect data from a wider population and context sample would have increased the reliability of the results, as this case study was only applied to a low population sample from just one programme. For that purpose, a more comprehensive investigation on university students' and teachers' perceptions on CLIL is being designed.

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